

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

- 1 1. (Cancelled)
- 1 2. (Previously Presented) The apparatus of claim 9, wherein the slickline comprises a bore  
2 through which the fiber optic line extends.
- 1 3. (Original) The apparatus of claim 2, further comprising another fiber optic line that  
2 extends through the bore of the slickline.
- 1 4. (Previously Presented) The apparatus of claim 9, further comprising longitudinally-  
2 extending support structures to add strength to the slickline.
- 1 5. (Original) The apparatus of claim 4, wherein the longitudinally-extending support  
2 structures include support fibers.
- 1 6. – 7. (Cancelled)
- 1 8. (Currently Amended) An apparatus for use in a well, comprising:  
2 a slickline having a fiber optic line therein;  
3 a tool attached to the slickline, wherein the tool comprises a sensor; and  
4 a modulator to modulate optical signals to represent a well characteristic detected by the  
5 sensor,  
6 wherein the sensor comprises a casing collar locator, and  
7 wherein the modulator comprises a reflective device and an element to modulate light  
8 reflected from the reflective device to the fiber optic line.

1 9. (Previously Presented) An apparatus for use in a well, comprising:  
2 a slickline having a fiber optic line therein;  
3 a tool attached to the slickline, wherein the tool comprises a sensor; and  
4 a modulator to modulate optical signals to represent a well characteristic detected by the  
5 sensor,  
6 wherein the modulator comprises an obstacle and a reflective device, the obstacle and  
7 reflective device movable with respect to each other to modulate the optical signals.

1 10. (Original) The apparatus of claim 9, wherein the obstacle and the reflective device have  
2 at least two relative positions, the obstacle blocking at least a portion of reflected light from the  
3 reflective device in response to the obstacle and the reflective device being at a first relative  
4 position, and the obstacle to allow a greater amount of reflected light to pass from the reflective  
5 device to the fiber optic line in response to the obstacle and the reflective device being at a  
6 second position.

1 11. (Original) The apparatus of claim 10, wherein the reflective device comprises a mirror.

1 12. (Original) The apparatus of claim 9, wherein the obstacle modulates an amount of  
2 reflected light transmitted by the reflective device to the fiber optic line.

1 13. (Original) The apparatus of claim 12, wherein the reflective device is adapted to receive  
2 transmitted light transmitted by an optical transmitter into the fiber optic line, and to reflect the  
3 received light as the reflected light.

1 14. (Withdrawn, Currently Amended) The apparatus of claim 8, wherein the ~~modulator~~  
2 element comprises a spinner ~~to modulate the optical signals, and the reflective device is~~  
3 connected to the spinner.

1 15. (Previously Presented) The apparatus of claim 9, wherein the tool is adapted to receive  
2 an actuation command through the fiber optic line.

1 16. (Previously Presented) The apparatus of claim 9, wherein the slickline is adapted to  
2 support a weight of greater than or equal to 500 pounds.

1 17. (Previously Presented) The apparatus of claim 9, wherein the slickline is a conveyance  
2 structure without an electrical conductor to communicate power or data.

1 18. (Previously Presented) The apparatus of claim 9, wherein the slickline is a conveyance  
2 structure that does not communicate power or data separate from the fiber optic line.

1 19. (Previously Presented) The apparatus of claim 9, wherein the tool comprises an optical  
2 transmitter to transmit optical signals over the fiber optic line.

1 20. – 21. (Cancelled)

1 22. (Currently Amended) An apparatus comprising:  
2 a conveyance structure for inserting or removing a tool into or out of a wellbore; [[and]]  
3 a fiber optic line extending through the conveyance structure;  
4 the conveyance structure not being used to transmit power or data therethrough separate  
5 from the fiber optic line,  
6 wherein the conveyance structure comprises a conveyance tube,  
7 wherein the conveyance tube has a diameter less than about 0.5 inch[[,]];  
8 a sensor coupled to the fiber optic line; and  
9 a modulator to modulate optical signals to represent a well characteristic detected by the  
10 sensor, the modulator comprising a reflective device and an element to modulate light reflected  
11 from the reflective device to the fiber optic line.

1 23. (Previously Presented) The apparatus of claim 22, wherein the conveyance structure  
2 comprises a bore through which the fiber optic line extends.

1 24. (Previously Presented) The apparatus of claim 22, further comprising another fiber optic  
2 line disposed in the conveyance structure.

1 25. – 26. (Cancelled)

1 27. (Previously Presented) An apparatus comprising:  
2 a conveyance structure for inserting or removing a tool into or out of a wellbore;  
3 a fiber optic line extending through the conveyance structure;  
4 the conveyance structure not being used to transmit power or data therethrough separate  
5 from the fiber optic line; and  
6 a modulator to modulate optical signals to represent an event associated with the tool,  
7 wherein the modulator comprises an obstacle and a reflective device, the obstacle and  
8 reflective device movable with respect to each other to modulate the optical signals.

1 28. (Original) The apparatus of claim 27, wherein the obstacle modulates an amount of  
2 reflected light transmitted by the reflective device to the fiber optic line.

1 29. (Original) The apparatus of claim 28, wherein the reflective device is adapted to receive  
2 transmitted light transmitted by an optical transmitter into the fiber optic line, and to reflect the  
3 received light as the reflected light.

1 30. – 38. (Cancelled)

1 39. (Previously Presented) The apparatus of claim 9, wherein the obstacle comprises a  
2 magnet.

1 40. (Previously Presented) The apparatus of claim 9, further comprising an actuator to move  
2 at least one of the obstacle and reflective device in response to a predetermined condition in the  
3 well.

1 41. (Previously Presented) The apparatus of claim 40, further comprising a casing collar  
2 locator, wherein the actuator receives data from the casing collar locator to move the at least one  
3 of the obstacle and reflective device.

1 42. (New) The apparatus of claim 8, wherein the element comprises an obstacle that is  
2 movable with respect to the reflective device.

1 43. (New) The apparatus of claim 22, wherein the element comprises an obstacle that is  
2 movable with respect to the reflective device.